

Remarks

The final Office Action mailed March 1, 2007 provided a final rejection of all pending claims 34-48 and 51-56. The Applicant respectfully requests reconsideration of this final rejection.

Withdrawal of Objection to the Drawings

The Applicant gratefully acknowledges the withdrawal of the previous objection to the drawings.

Rejection of Claims Under 35 U.S.C. §103(a)

Claims 34-48 and 51-56 stand finally rejected as being obvious over U.S. Patent No. 4,967,291 to Touchton (“Touchton ‘291”) in view of U.S. Patent No. 6,043,631 to Tsenter (“Tsenter ‘631”). This rejection is respectfully traversed.

In the Response to Arguments section of the final Office Action, the Examiner stated as follows:

The applicant argues that the rejection is deficient in showing “power is removed from a load when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power.” FIG. 2 of Tsenter fulfills the claim language [by] decreasing in magnitude and being a profile. Final Office Action, page 5, line 21 to page 6, line 3 (emphasis added)

This characterization of Tsenter ‘631 is respectfully misplaced. Tsenter ‘631 teaches that power is removed from a load (the battery being charged) at the end of each predefined current pulse duration when a timer signals the microcontroller 18 that the predetermined current pulse time has expired. Col. 6, lines 24-28; col. 8, lines 22-25; col.

9, lines 33-45. Power is also removed from the load in Tsenter '631 when the microcontroller 18 determines that a potential shunting (shorting) condition is identified, or the battery recharging process is completed. Col. 6, line 66 to col. 7, line 1.

None of these situations teach or suggest “*power is removed from the load when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power to said load,” as claimed by claim 34 (emphasis added).*

FIG. 2 of Tsenter '631 adds nothing of any particular value with regard to the above claim language. The two current pulses represented in FIG. 2 are equal magnitude current pulses of predetermined time duration, followed by two corresponding rest periods during which no current is applied and open circuit voltage measurements are taken. See e.g., col. 9, lines 36-39 (“*This charge [in FIG. 2] is provided with a pulse duration which equals approximately 20 s and is filtered by a currentless period of about 280 ms.*”). See also col. 9, lines 42-45 (“*The preferred charging profile would contain a 1.8 A charge pulse with a duration of 30 s with a 2 s rest period for measurement of the chemical polarization voltage value, VCP.*”)

Thus, unlike the claim language, the system taught by Tsenter '631 and illustrated by FIG. 2 removes charge from the load at the end of each pulse when the predetermined elapsed time for that pulse has expired, not “*when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power to said load,” as claimed. Adjustments in the amount of charge current applied during each pulse would not alter this result, since the*

termination of each charge pulse would still be based on the passage of a predetermined amount of elapsed time. See e.g., Abstract, lines 9-12.

The overall termination of the charging process as taught by Tsenter '631 also cannot be viewed as meeting the above claim language; in such case, the termination occurs when the measured change in chemical polarization voltage meets a predetermined relative or absolute threshold. Col. 9, lines 10-32. This provides nothing of any particular significance with regard to teaching or suggesting that *“power is removed from the load when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power to said load,”* as claimed.

Finally, the Examiner appears to have objected to the Applicant's arguments, stating that *“one cannot show nonobviousness by attacking references individually.”* Final Office Action, page 6, lines 3-10. This is respectfully traversed on the basis that the combinability of the cited references has not been established by the Examiner, per *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

The Applicant maintains that a skilled artisan would be hard pressed to figure out how to reasonably combine a battery charger circuit, as taught by Tsenter '631, with a disc drive overvelocity circuit, as taught by Touchton '291. The point is moot, however, since as demonstrated above, all of the limitations of the claims have not been shown to be taught or suggested by the cited references, and no *prima facie* case of obviousness has been established. *Graham, Supra.*

Accordingly, reconsideration of the rejection of independent claim 34, and for the claims depending therefrom, are respectfully requested. As the cited references are

similarly deficient with respect to independent claims 41 and 47, reconsideration and withdrawal of these claims, and the claims depending therefrom, are also respectfully solicited.

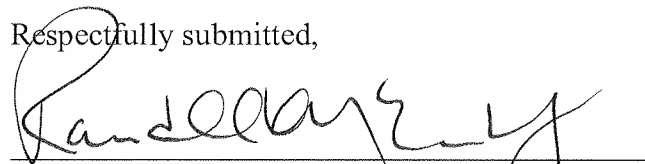
Conclusion

This is intended to be a complete response to the final Office Action mailed March 1, 2007. The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application.

The Examiner is invited to contact the below signed Attorney should any questions arise concerning this response.

Respectfully submitted,

By:

A handwritten signature in black ink, appearing to read "Randall K. McCarthy", written over a horizontal line.

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